

ABSTRACT

A process for modifying the surface of a quartz glass crucible and a modified quartz glass crucible produced by the process, where the crucible has a transparent coated layer containing a crystallization accelerator on the surface. The process includes coating a mixed solution containing a metal salt and a partial hydrolyzate of alkoxysilane oligomer on the surface of the crucible and heating to obtain a quartz glass crucible having a transparent coated layer. The crystallization promoter contains a metal oxide or a metal carbonate dispersed in a silica matrix.